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LEADERSHIP IN THE PROCESS OF GLOBAL INTELLECTUALIZATION

Summary. *There are analyzed the main factors of intellectualization of the national economy in the process of global development in the article, identified and analyzed the factors of global leadership. The disposition of the countries according to different indices and criteria of development is analyzed.*

Key words: *intellect, intellectual leadership, leadership, global intellectualization*

Formulation of the problem. The sharpening of competition at all levels, the rapid change in competitive positions, the significant stratification of the competitive environment and the change in the basics of competitive struggle - all this is accompanied by the transition to a new world knowledge-based system. Strengthening dependencies between world economies requires the

development of new management methods to ensure a high competitive position.

New tools and methods of competitive struggle are emerging in the modern world. In today's highly competitive conditions, the achievement of leadership positions is not only an achievement of economic development, but also an important task for the countries of the world. Detection of leadership becomes important at the level of companies and national economies. In the modern context, the understanding of leadership is significantly changed, which is perceived much wider. Leadership becomes an element of the management process of the team and, as practice shows, it increasingly becomes a part of the economic analysis at different levels of social organization.

The formation of a new global system takes place together with the identification of new factors and factors of competitiveness of a company or country. Moreover, these factors are not only related to human resources, they are based on intellectual activity, its results in the form of the latest achievements and technologies and their application. The importance of the intellectual component of leadership acquires a new meaning in modern conditions, which requires research at the present stage of development of world economic relations.

Recent research and publications. Leadership issues are an issue of relevance to the research of a large number of scientists from different fields of science and practice. Thus, the general issues of leadership were considered in the works of F. Bailey, B. Bass, K. Blaschar, J. Blondel, N. Ghazzard, R. Dafta, R. Irelanda, D. Kats, V. Kremen, O. Nestuli, F. Selznika, R. Stogdila, Ke De Vri, H. Owen, V. Hodgson and others. Issues of political leadership became the focus of L. Eddinger, V. Lee Vina, I. Gladuniak, L. Gonyukova and others. Organizational leadership is considered in the works of P. Senge, S. Filonovich, M. Pyren, O. Lukasheva. However, the complexity, multidimensionality of the concept of leadership leaves scientists much more space for scientific research. The role of leadership and the form of its manifestation in today's conditions of intensifying competition in a complex interconnected and globalized world requires reconsideration. Of course, one of the most interesting in the scientific sense of the problem is the study of the manifestation of such a phenomenon as intellectual leadership.

The purpose of the work is to study the manifestation of intellectual leadership in a globalized world, analysis of the main indicators of intellectualization of the economy.

Presentation of the main research material. The achievement of global leadership in the context of global turbulence is actualizing. This is caused by a change in the paradigm of leadership and its core, since modern leadership is based on intelligence and innovation as a result of the implementation of intelligence. The evolution of the world economy proves that at different times, the countries with the most advanced technologies and innovative products occupied the leading positions.

Classically, global leadership is determined through a system of macroeconomic indicators that demonstrate the position and role of the country in the identified processes; thus, one of the key indicators is GDP size. However, the structure of such indicators and indexes has been expanding lately. For example, in 2018, the World Economic Forum proposed a new Inclusive Development Index, which includes three components: growth and development, inclusiveness and continuity of generations [4].

Based on the fact that leadership is considered at individual, organizational, national, international and global levels, the assessment and factors of its provision vary widely. However, the most significant forms of leadership can be found on the international and global levels. According to scientists [8], global leadership in the 21st century depends mainly on the following factors:

- ability to reduce costs through the use of "globalization effects";
- managing global demand both at company level and at national government level (which can be expressed through the coordination of monetary and financial policies);
- institutionalization of the regulation system for socio-economic relations (the growth of the role of national-business and coalition-business structures that can form a global club for the management of the global reproduction process);
- regulation of innovation demand, clear positioning of global innovators and followers;
- a clear monetary system that provides a high valuation of national currency for attraction of cheap resources from developing countries;
- virtualization of economic relations and expansion of tax evasion possibilities for leading corporations;
- flexibility and selectivity in the international economic relations of the integration sectors of the national economy [8, pp.17-18]

These factors in one way or another include modern forms of development of the world economy, such as networking, robotics, total computerization, and others. All this is the result of intellectual activity and determines the Fourth Industrial Revolution. Modern economies have a high level of dependence on the skill level of the workforce, the level of investment in research projects and research. Science-intensive activities that have emerged only in recent years are becoming leading industries. Formed knowledge flows determine new trends in financial and business services, educational, health, pharmaceutical, air and space products. These goods become motivators and integrators for the opportunities of competition in the global market.

Determining the leading position of the country on the global map is made via the ranking of countries by various attributes. Most of these indexes and ratings take into account the component of the use of intelligence or intellectual activity. So, more than 20 indices rate the level of intellectualization of the country (Global Innovation Index, Global Talent Competitiveness Index,

Human Development Index, World Education Level Index, The Social Progress Index, The Bloomberg Innovation Index, The Legatum Prosperity Index, Satisfaction with Life Index, Academic Ranking of World Universities, Webometrics ranking of world's universities, etc.).

In addition, generalizing rating systems, such as global competitiveness index, social progress index, prosperity index, World Trade Organization report, etc., in one measure or another, include indicators that characterize the performance of the country's intellectual activity, which serves as confirmation of the intellectual component importance in the modern world.

The degree of the countries' potential implementation, their structure of trade, trends in development are reflected in global rankings that take into account the above indicators; for example, in the definition of the Global Innovation Index, which explores the innovation costs of the world countries and their innovative performance. Analyzing the innovative activity of countries, we can note that the main players in the market of innovations are still highly developed countries (Table 1).

Table 1

Global innovation index [3]

№	Country	Region	Total score
1	Switzerland	Europe	68,30
2	UK	Europe	62,42
3	Sweden	Europe	62,40
4	Netherlands	Europe	61,58
5	USA	North America	60,10
6	Finland	Europe	59,97
7	Singapore	Southeast Asia	59,36
8	Ireland	Europe	59,13
9	Luxemburg	Europe	59,02
10	Denmark	Europe	57,70
11	Hong Kong (China)	Southeast Asia	57,23
12	Germany	Europe	57,05
13	Iceland	Europe	57,02
14	South Korea	Southeast Asia	56,26
15	New Zealand	Southeast Asia	55,92
16	Canada	North America	55,73
17	Australia	Southeast Asia	55,22
18	Austria	Europe	54,07
19	Japan	Southeast Asia	53,97
20	Norway	Europe	53,80

As you can see, most of the key countries innovators are concentrated in Europe. Of the top 20 countries in the world by innovation levels, 12 are in Europe, which is 60% of those twenty. And only 6 countries (30%) represent Asia. Such concentration of innovative developed countries is explained by sound government policy and focus on the development of internal capabilities.

The leading countries of the world form a rather harmonious policy of supporting the intellectual component of the economy and ensuring its innovation. At the same time, the analysis of these indicators by regions shows rather significant gap. For instance, in the countries of Africa, Latin America and West Asia, the indicators of innovation are quite low. As you can see, the analysis shows significant disparities in development in terms of innovation activity. However, this does not exclude opportunities for development in countries with a lower level of development.

The countries that are at the forefront of the world demonstrate a creative transformation, becoming a platform for the formation of a successful society and a prosperous nation. Thus, one of the important indicators, which is defined in the study of World Development Indicators, is the export rating of high-tech products. According to generally accepted standards, high-tech products include products, in which the share of research and development works is not less than 3.5%. Thus, the volumes of trade in high-tech products serve as a symptomatic effective indicator of the level of intellectual activity of each country (Table 2).

Table 2

Indicators of activity in high technology sector [1]

	High-tech production					**High-tech knowledge-intensive services**				
	Number of enterprises	Turnover (million Euro)	Cost of production (million Euro)	Value Added (Million Euros)	Gross investment in tangible goods (mln.EUR)	Number of enterprises	Turnover (million Euro)	Cost of production (million Euro)	Value Added (Million Euros)	Gross investment in tangible goods (mln.EUR)
Germany	8713	118229	108348	39876	4264	96896	210725	172271	103202	10653
Italy	5683	46510	45188	14436	1284	98679	99532	101530	44845	4701
United Kingdom	6528	40143	37797	16836	1183	169541	227412	214090	104750	12560
France	3309	73389	59430	19289	2245	127547	154949	155878	68925	10133
Ireland	165	39628	38903	-	2209	-	-	-	-	-
Finland	597	27633	11993	-	252	-	14106	-	-	-
Sweden	1763	24750	22693	9420	440	52088	-	-	-	-

Indicators of activity in the sectors of high-tech products indicate the potential accumulated in the countries and the prospects of development. This is reflected in the report of the World Intellectual Property Organization, in which the patent activity of countries and the number of patent applications from both residents and non-residents are analyzed. Therefore, both internal capabilities and external sources of economy's intellectualization are studied (Table 3).

Table 3

Worldwide Ranking by Number of Patents [2]

Rank	Country	2009	2010	2011	2012	2013	2014
1	China	314604	391177	526412	652777	825136	928177
2	USA	456106	490226	503582	542815	571612	578802
3	Japan	348596	344598	342610	342796	328436	325989
4	South Korea	163523	170101	178924	188915	204589	-
5	Germany	59583	59245	59444	61340	63 167	65965
6	Russia	38564	42500	41414	44211	44 914	40308
7	India	34287	39762	42291	43955	43 031	42854
8	Canada	37477	35449	35111	35242	34 741	35481
9	Brasilia	22406	24999	28649	30435	30 884	30342
10	Australia	23681	24887	25526	26358	29 717	25956

Analyzing the indicators of patent activity, it should be noted that a significant gap among the countries-leaders in patent activity is tracked. For instance, leaders by the number of applications, China and the United States, have a significantly higher number of applications than other countries included to the Top-10. At the same time, the number of all applications in countries from third to tenth positions is only 73% of the number of applications in the United States and China. Qualitative structure of applications in China and the United States differs by the number of applications from residents and non-residents. While in the United States of America, the numbers of applications from residents and non-residents are nearly equal, in China, applications from residents exceed applications from non-residents by almost 60% [2]. In China itself, the number of patents and patent applications tends to increase each year by an average of 17%, indicating a rather significant potential of this economy for leadership.

A consolidated analysis of the indicators of various world rankings allows to conclude that the countries with the highest indicators of human potential development, research funding, trade in high-tech products and services become, respectively, the global engines of development. They are the new technologies, the effectiveness of their implementation and human that determine the speed and effectiveness of development, the country's position on the world stage. While in the 1950s, the country's development depended on new technologies only by 38%, in the 90's - already by 65% [7, P.143]. With it, the relationship between the general level of development of the country, the level of efficiency of intellectual activity and social development of countries is detected. The countries that are in a group of key innovators are the leaders in ratings of education or social progress [6].

The study confirms the key trend of modern world economic development - the broad intellectualization of production and trade, the priority development of science, the spread of complex mental labor [5, p. 15]. That is what forms the centers of development of world civilization and becomes a prerequisite for the formation of a society based on knowledge.

Conclusions. The increasing relevance of the problem of intellectual leadership in the modern global environment is associated with the growth of competition, as well as the complexity of the structure of the global economy and the factors of its development. A complication of the nature of leadership is taking place, which is manifested in various forms of activity and is realized at different levels of economic activity. This is confirmed, on the one hand, by the increasing role of intellectual resources in achieving leadership positions in a variety of criteria for economic and innovative development, and, on the other hand, intellectual activity becomes an independent sphere of global competition. The importance of the intellectual component in almost all world rankings and indices is proved, which confirms the growth of the role of intellectual resources at all levels of world economic development.

At the same time, the problem of implementation of intellectual leadership provides a large space for further analysis, both in terms of identifying quantitative dependencies and the role of intellectual factors, and in the context of in-depth research of factors and leadership attainment mechanisms through the accumulation and realization of intellectual resources.

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